

Work Order ID 159360

Friday, April 07, 2017 4:17:07 PM

159360

Page 1

Item ID: D2680-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Nut Plate
 Start Date: 4/14/2017 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 4/19/2017 Req'd Qty: 12.00 ***12*** Customer:
 Reference: SCHEDULE/S

Approvals: Process Plan: DAS 21 Date: APR 10 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2680	Rev B1								

100 FLOW WATER JET 0.00
100
 Waterjet Memo 0.21 (16) 04/17/18
 FLOW CNC Waterjet 1-Cut as per Dwg D2680 Dwg Rev: B1 Prog Rev: B1 2-
 Deburr if necessary

110 QC2- Inspect parts off machine FAI/FAIB 0.00
110
 QC Memo 0.12 (16) 04/17/18
 Quality Control

120 QC8- Inspect parts - second check 0.00
120
 QC Memo 0.24 16 DAS 38
 Quality Control 9-89

APR 18 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Small Fab					16x			17/04/18 DAS 36 9-89
Small Fab	Memo	0.32							
Small Fab	1- Deburr 2-C'sink as per Dwg D2680								
140		0.00							
140	QC5- Inspect part completeness to step on W/O					16			DAS 38 9-89
QC	Memo	0.24							
Quality Control									
150		0.00							
150	White Gloss(Ref 4.3.5.2) per QSI005 4.3-Steel					16			DAS 41 9-89
Powdercoat	Memo	0.15							
Powder Coating	START TIME: _____ FINISH TIME: _____ OVEN TEMPERATURE: _____								

APR 19 2017

APR 30 2017

Prime 136082
Paint 137281
clear 137399

ISS SPRAY PAINT.

Blow

160 QC. 14

DQA: _____ Date: _____



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Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Friday, April 07, 2017 4:17:07 PM

Page 3

[illegible]

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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* Packaging Packaging	Identify as per dwg & Stock Location: <u>FP-001</u> Memo LOCATION :LG001	0.00 0.12							<u>yl6</u> <u>of</u> <u>Ill</u> <u>17/05/02</u>
200 *200* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 1.20							

4/7/2017

DQA: _____ Date: _____



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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Friday, April 07, 2017 4:17:07 PM

Page 1

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159360

Parent Item: D2680-041

D2680-041

Parent Item Name: Nut Plate

Start Date: 4/14/2017

Required Date: 4/19/2017

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: D04.10.01Added Steps 2-4, 7-8KJ/JLM
IPP Rev:E Now on WaterJet 06-10-12 JLM
IPP rev F QC5 after c'sink 07.07.05 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M1010S16GA Purchased No 170 sf 80.6509 0.0131 0.165474

M1010S16GA

1010/1025 sheet 16GA

**

02/17/04/18

Location Loc Qty Loc Code

MAT019 80.650947

124428

80.650947

3

MS20426AD3-3 Purchased No 170 Each 3,392.000 2 24

MS20426AD3-3

RIVET

**

17/05/02 DAS 36 9-89

Location Loc Qty Loc Code

fg108 40

M134946 200

M136880 40

GA 896

M135274 896

32

ST312 2256

M135274 2256

MS21069L4 Purchased No 110 Each 41.0000 1 12

MS21069L4

Nut Plate

**

17/05/02 DAS 36 9-89

Location Loc Qty Loc Code

ST299 41

m135600 16

m137166 25

16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

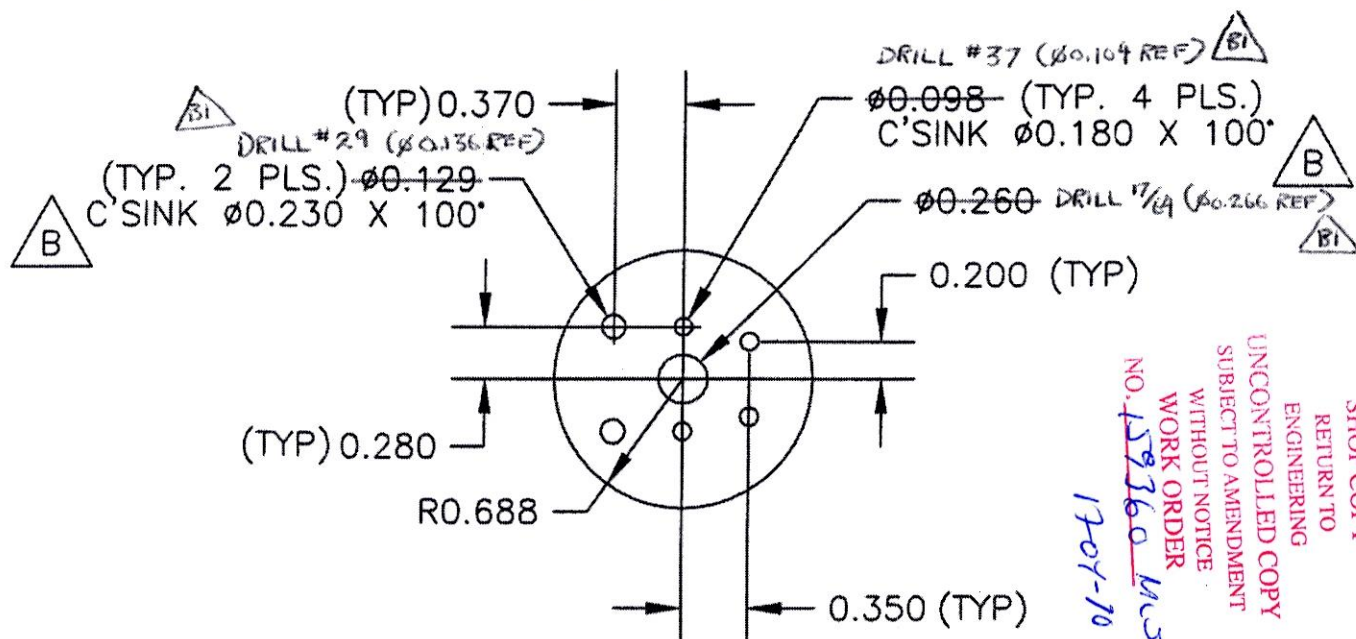
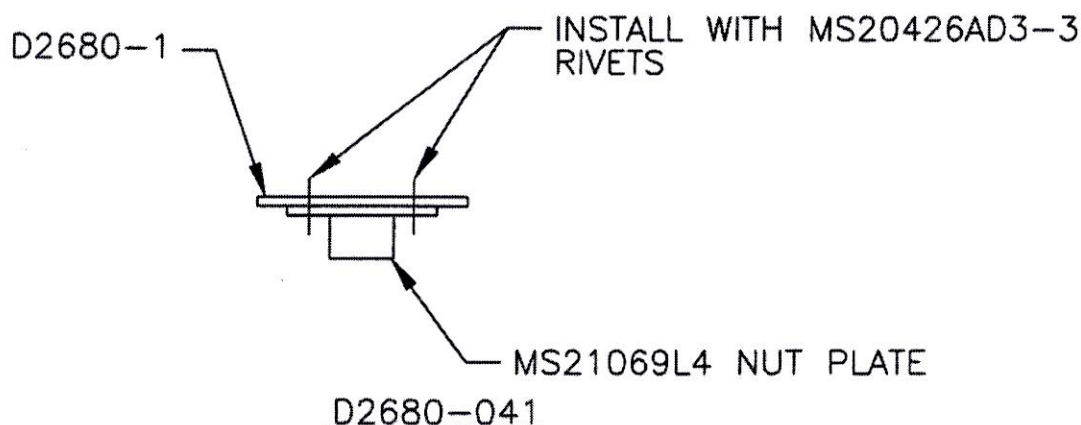
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								



DESIGN #	DRAWN BY #	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED CP	APPROVED KE	DRAWING NO. D2680	REV. B SHEET 1 OF 1
DATE 98.12.14	TITLE NUT PLATE		SCALE 1:1
A	97.09.15	NEW ISSUE	
B	98.12.14	CHANGE C'SINKS (PER TSR A1041)	
B1	CP # 04.11.04	CHANGE HOLES & FINISH	

RELEASED
98.12.14 DS



MATERIAL: ASTM A36/A366/A569/A570 OR AISI 1010-1025 STEEL
0.063 THICK (16 GAUGE)

CAD PLATE PRIOR TO INSTALLATION OF MS21069L4

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

B1 POWDER COAT WHITE (4.3.5.2) PER DART QSI 018 4.3
D2680-1